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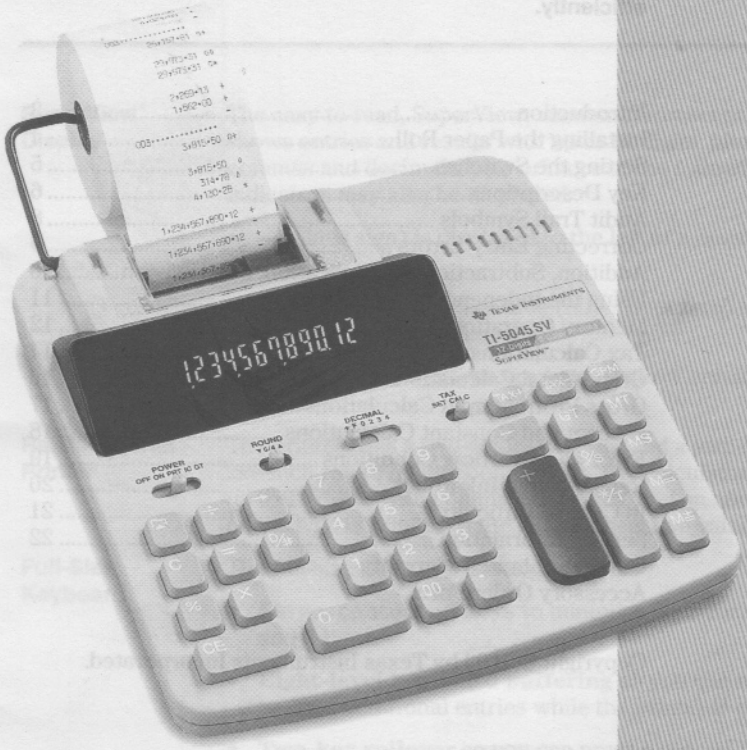

TI-5045 SV

OFFICE CALCULATOR

GUIDEBOOK

TI-5045 SV Guidebook

The TI-5045 SV represents TI's new generation of printing calculators. Along with its great new design, the TI-5045 SV offers easy-to-use features and functions to help increase office productivity. This guidebook explains how to use the capabilities of the TI-5045 SV efficiently.

Table of Contents

Introduction 3
Installing the Paper Roll 4
Setting the Switches 5
Key Descriptions 6
Audit Trail Symbols 8
Correcting Entry Errors 9
Addition, Subtraction, Multiplication, and Division 10
Using the Independent Add Register 11
Memory Operations 12
Tax Calculations 14
Grand Total Calculations 16
Gross Profit Margin Calculations 17
Percent and Constant Calculations 18
Error and Overflow Conditions 19
Replacing the Ink Roller 20
In Case of Difficulty 21
Service Information 22
One-Year Limited Warranty
Accessory Order Form

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Important

Record the serial number from the bottom of the calculator and the purchase date in the spaces below. Always refer to this information in correspondence.

TI-5045 SV		
Model Number	Serial Number	Purchase Date

Introduction

The TI-5045 SV printing calculator has an extra-large SuperView™ display for checking entries and results. The reliable serial printer provides a permanent record of your calculations.

SuperView Display

The easy-to-read, SuperView, vacuum fluorescent display shows entries and results with up to 12 digits, plus commas and decimals. One or more of the following indicators may also be displayed.

- – (minus sign) is displayed to the left of a negative value.
- **M** is displayed when a value (other than zero) is stored in the calculator's memory.
- **E** is displayed when an error or overflow condition occurs.

Reliable Serial Printer

The printer uses a two-color ink roller and a standard 2¼–inch roll of quality bond paper. The calculator prints up to 12 digits with commas, decimals, and an audit trail. A minus sign is printed to the left of a negative value.

Full-Size Keyboard

The full-size keyboard is designed with:

- **Large, contoured keys** to minimize keystroke errors and fatigue.
- **Eight-level keyboard buffering** so you can make up to eight additional entries while the printer is operating.
- **Two-key rollover** so you can press a second key before releasing the previously pressed key.

Special Features

- One-piece, built-in, metal paper arm
- Tax switch and keys
- Grand Total key
- Gross Profit Margin key
- Four-key memory
- Automatic constant
- Independent add register

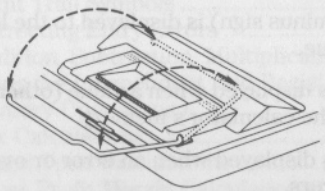
Installing the Paper Roll

Before you operate the calculator, remove any protective shipping materials and install the roll of quality bond paper included with your calculator. The roll should be replaced when a continuous stripe appears on the paper. This indicates that only a few feet of paper remain on the roll.

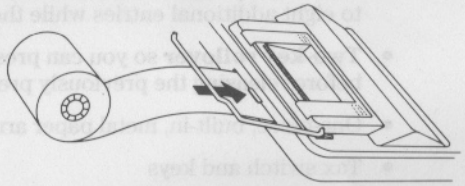
Installing the Paper Roll

To install the 2¼-inch roll of printing paper:

1. Lift the blue metal paper holder so that it extends behind the printer compartment.



2. If necessary, set the **POWER** switch to **OFF**.
3. Plug the power cord into an easily accessible 110-volt electrical outlet near the calculator. Set the **POWER** switch to **ON**.
4. Cut the end of the paper squarely. Holding the paper so that it unrolls from the bottom, insert the end of the paper firmly into the paper slot on the back of the calculator. Use quality bond paper to avoid paper jams.



5. While feeding the paper into the slot, press the paper advance key [▱] until the paper is in printing position.
6. Place the paper roll on the paper holder.
7. Set the **POWER** switch to **ON**, **PRT**, **IC**, or **GT**.

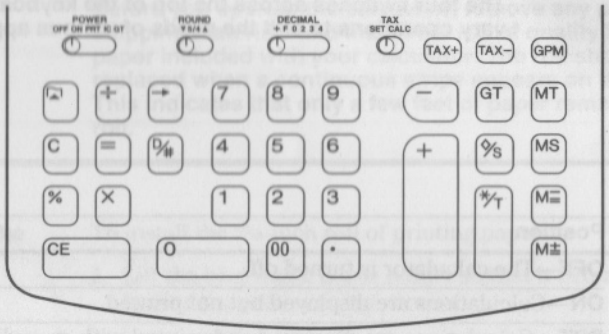
Note: To prevent damage to the printer (which may void the warranty), set the **POWER** switch to **ON** when operating the calculator without paper.

Setting the Switches

The four switches across the top of the keyboard let you vary operations to suit the needs of various applications.

Switch	Position
POWER	**OFF**—The calculator is turned off.
	ON—Calculations are displayed but not printed.
	PRT—Calculations are displayed and printed with an audit trail.
	IC—Both the printer and item counter are active. The item count (total number of additions to and subtractions from the independent add register) is printed when you press [◇/S], [*/T], [MS], or [MT]. Pressing [*/T] or [MT] clears the item counter.
	GT—Independent add register totals are accumulated in the grand total register. Press [*/T] and the total and **G+** are printed. The item count is also printed. Press [GT] once and the current grand subtotal is displayed and printed with **G◊**. Press [GT] a second time to get the grand total followed by **G*** .
ROUND	**▼**—Results are rounded down to the number of decimal places indicated by the current **DECIMAL** switch setting.
	5/4—Results are rounded up or down depending on the value. For example, setting the **DECIMAL** switch to **2** results in rounding up if the third decimal position is 5 or more, or rounding down if 4 or less.
	▲—Results are rounded up to the number of decimal places indicated by the current **DECIMAL** switch setting.
DECIMAL	**Add mode** (+)—In addition and subtraction, automatically enters a decimal point to the left of the last two digits entered, unless you enter one. In multiplication and division, you must enter the decimal point. Results are displayed and printed with two decimal places.
	Floating-decimal mode (**F**)—Allows the number of decimal places to vary, depending on the result of the calculation.
	Fixed-decimal mode (**0, 2, 3, 4**)—Sets the number of decimal places to 0, 2, 3, or 4. Results are rounded up or down (according to the **ROUND** switch setting) to the number of decimal places you select. If a result contains **more** than the selected number of decimal places, the result is rounded. If a result contains **fewer** than the selected number of decimal places, trailing zeros are added.
TAX	**SET**—Lets you enter the tax rate to be used in tax calculations.
	CALC—Stores the tax rate you enter for use in tax calculations. (**Note**: **TAX** switch must be set to **CALC** to perform calculations.)

Key Descriptions



Key	Operation and Page Reference
[▱]	**Paper Advance Key** advances the paper without printing anything or affecting your calculation. (Pages 4, 20)
[C]	**Clear Key** clears the display, the independent add register, any pending operation, and any error or overflow condition. Does not clear the memory or grand total register. (Page 9)
[%]	**Percent Key** instructs the calculator to interpret the number in the display as a percentage. Completes a multiplication or division operation. (Page 18)
[CE]	**Clear Entry Key** clears an entry, letting you enter another number in its place. Also clears an overflow condition. Does not clear the independent add register, any pending operation, the memory, or the grand total register. (Page 9)
[÷]	**Divide Key** divides the number in the display by the next value entered. (Page 10)
[=]	**Equals Key** completes any pending multiplication, division, or gross profit margin (GPM) operation. Does not add the result to the independent add register. (Pages 10, 11, 17)
[×]	**Multiply Key** multiplies the number in the display by the next value entered. (Page 10)
[→]	**Right Shift Key** removes the last digit entered in the display and shifts the remaining digits one space to the right. This lets you make corrections without clearing the entire number. (Page 9)
[D/#]	**Non-Add Key** prints a reference number or date without affecting calculations in progress. The number is printed at the left of the paper. You can enter decimal points to separate parts of the number; for example, to print a date. (Page 11)

Key	Operation and Page Reference
[0]-[9], [00]	**Number Keys** enter numbers containing up to 12 digits. For numbers between 1 and -1, a zero automatically precedes the decimal.
[.]	**Decimal Point Key** enters a decimal point. If you do not enter a decimal point, the calculator automatically places a decimal point to the right of an entered number.
[TAX+]	**Add Tax Key** calculates the tax amount, using the stored tax rate, and adds it to the original price before tax (the displayed value). (Pages 14, 15)
[−]	**Subtract Key** subtracts the number in the display from the value in the independent add register. (Page 10)
[+]	**Add Key** adds the number in the display to the value in the independent add register. (Page 10)
[TAX−]	**Subtract Tax Key** calculates the amount of tax to be deducted (using the stored tax rate) and subtracts it from the displayed value to find the pre-tax sales amount. (Page 15)
[GT]	**Grand Total Key** displays and prints the current grand total of all calculation totals previously performed in the independent add register. To clear the grand total register, press [GT] a second time. Grand total is active only if the **POWER** switch is set to **GT**. (Page 16)
[◇/S]	**Subtotal Key** displays and prints the current value in the independent add register, but does not clear the register. (Page 10)
[*/T]	**Total Key** displays and prints the current value in the independent add register, and then clears the register. Also resets the item counter to zero. (Page 10)
[GPM]	**Gross Profit Margin Key** calculates the selling price and profit or loss amount on an item when its cost and gross profit or loss margin are known. (Page 17)
[MT]	**Memory Total Key** displays and prints the current value in memory, and then clears the memory. Also clears the **M** indicator from the display and resets the memory item count to zero. (Pages 12, 13)
[MS]	**Memory Subtotal Key** displays and prints the current value in memory, but does not clear the memory. (Page 13)
[M=]	**Subtract from Memory Key** subtracts the currently displayed value from the memory. If a multiplication or division operation is pending, pressing [M=] completes the operation and subtracts the result from memory. (Page 13)
[M±]	**Add to Memory Key** adds the currently displayed value to the memory. If a multiplication or division operation is pending, pressing [M±] completes the operation and adds the result to memory. (Pages 12, 13)

Audit Trail Symbols

During calculations, audit trail symbols are printed to the right of entries and results on the paper tape. A minus sign is printed to the left of negative entries and results. Refer to Error/Overflow Conditions for information on other symbols.

Symbol	Meaning
+	Addition to the independent add register.
–	Subtraction from the independent add register.
x	Multiplication operation.
÷	Division operation.
=	Completion of a multiplication or division operation.
◊	Subtotal of entries in the independent add register. Subtotal amount before tax is added or subtracted in a tax calculation.
*	Selling price in a gross profit margin (GPM) calculation. Result after [=], [%], [TAX+], [TAX–], or [*/T] is pressed. (If the **POWER** switch is set to **GT**, **G+** rather than * is printed when you press [*/T].)
GM	Item cost in a gross profit margin (GPM) calculation.
M+	Addition to memory.
M-	Subtraction from memory.
M◊	Memory subtotal.
M*	Memory total.
%	Percentage amount in percent calculation. Percentage of profit or loss in gross profit margin (GPM) calculation. Tax amount set with **TAX** switch.
+%	Result in percent add-on calculation.
–%	Result in percent discount calculation.
Δ	Tax amount in a tax calculation.
Δ*	Profit or loss amount in a gross profit margin (GPM) calculation.
#	Precedes a non-add ([D/#]) entry.
C	Clear key ([C]) was pressed.
G+	When the **POWER** switch is set to **GT**, total of the independent add register since the last time [*/T] was pressed.
G◊	Grand subtotal of the independent add register since the last time [GT] was pressed.
G*	Grand total of the independent add register since the last time [GT] was pressed.

Correcting Entry Errors

You can correct an entry error by pressing [C] to clear the calculator and begin again. Use one of the techniques described below to correct an entry error without clearing an entire calculation. Remember that the item counter keeps track of all entries to the independent add register, including unintentional ones.

Correcting Entry Errors

49.01 + 16.55 + 25.45 = 91.01

POWER (PRT), ROUND (5/4), DECIMAL (F), TAX (CALC)

Enter/Press	Display	Print
[C]	0.	0. C
49.01 [+]	49.01	49.01 +
15.55	15.55	
[CE] †	0.	
16.555	16.555	
[→] ††	16.55	
[+]	65.56	16.55 +
24.55 [+]	90.11	24.55 +
[–] †††	65.56	24.55 -
[*/T]	65.56	65.56 *
[+] ††††	65.56	65.56 +
25.45 [+]	91.01	25.45 +
[*/T]	91.01	91.01 *

† Pressing [CE] clears an incorrect entry if no operation key was pressed.

†† Pressing [→] clears the rightmost digit if no operation key was pressed.

††† Pressing the opposite operation key cancels an incorrect entry if an operation key was pressed. This is applicable only with independent add register ([+] and [–]) or memory ([M±] and [M=]) calculations.

†††† Pressing [+] restores the value to the independent add register if [*/T] was pressed by mistake. Likewise, pressing [M±] restores a value to memory if [MT] is pressed by mistake.

Addition, Subtraction, Multiplication, and Division

The independent add register keeps addition and subtraction entries separate from multiplication and division entries. If the POWER switch is set to IC or GT, the number of entries (additions and subtractions) to the independent add register is printed when you press [◊/S], [*/T], [MS], or [MT].

Addition and Subtraction

12.41 – 3.95 + 5.40 + 5.40 – .33 – .93 = 18.00

POWER (IC), ROUND (5/4), DECIMAL (+), TAX (CALC)

Enter/Press	Display	Print
[C]	0.	0. C
1241 [+]	12.41	12.41 +
395 [−]	8.46	3.95 −
[◊/S]		002.....
	8.46	8.46 ◊
540 [+]	13.86	5.40 +
[+]	19.26	5.40 +
[◊/S]		004.....
	19.26	19.26 ◊
33 [−]	18.93	0.33 −
93 [−]	18.00	0.93 −
[*/T]		006.....
	18.00	18.00 *

Multiplication and Division

11.32 × 6 × 5.04 ÷ 2 = 171.1584

POWER (PRT), ROUND (5/4), DECIMAL (F), TAX (CALC)

Enter/Press	Display	Print
[C]	0	0. C
11.32 [×]	11.32	11.32 x
6 [×]	67.92	6. x
5.04 [÷]	342.3168	5.04 ÷
2 [=]		2. =
	171.1584	171.1584 *

Using the Independent Add Register

The independent add register keeps a running total of all addition and subtraction ([+] and [−]) calculations; however, multiplication and division calculations are kept separate. To include the result of a multiplication or division calculation in the independent add register's running total, press [+] or [−] after pressing [=].

Sum of Products

A partial inventory list, including the part number, quantity, and price of each item, is given below. Find the value of the items. The date is December 24, 1993. Use the [D/#] key to print the part numbers and date your tape for future reference.

Part Number	Quantity	Price
61039	1,000	$.05 each
62148	3,200	$.14 each

POWER (PRT), ROUND (5/4), DECIMAL (2), TAX (CALC)

Enter/Press	Display	Print
[C]	0.	0. C
61039 [D/#]	61,039.	#61039.....
1000 [×]	1,000.	1,000. x
.05 [=]		0.05 =
	50.00	50.00 *
[+] †	50.00	50.00 +
62148 [D/#]	62,148.	#62148.....
3200 [×]	3,200.	3,200. x
.14 [=]		0.14 =
	448.00	448.00 *
[+]	498.00	448.00 +
[*/T]	498.00	498.00 *
12.24.93 [D/#]	12.2493	#12.24.93..

† Pressing [+] adds the result of the multiplication operation to the independent add register.

The value of the first group is $50, and the value of the second group is $448. The total cost is $498.

You can use the calculator's memory to store one result while calculating another, or perform one calculation in memory while performing another calculation in the independent add register. Please note that any value in memory is retained until you clear it even when the calculator is turned off, but not if it is unplugged.

Calculating Separate Totals Using the Memory and Independent Add Register

You own a retail business. At the end of the day you want to tally the sales of an individual salesperson. However, you want to leave the independent add register free to generate a receipt in case someone wants to make a purchase. You can do this by using the memory to tally the days sales.

The salesperson made sales of $450, $75, $145, and $47. You are in the middle of this calculation when a customer decides to purchase two items at $85 and $57.

Part 1: Begin Sales Tally

POWER (PRT), ROUND (5/4), DECIMAL (2), TAX (CALC)

Enter/Press		Display	Print
[MT] †		0.00	0.00 M*
[C]		0.	0. C
450 [M±]	M	450.00	450.00 M+
75 [M±]	M	75.00	75.00 M+

† Pressing [MT] prints the current memory total (which may not be zero as shown here) and clears the memory.

Part 2: Obtain Sales Receipt

Enter/Press		Display	Print
85 [+]	M	85.00	85.00 +
57 [+]	M	142.00	57.00 +
[*/T]	M	142.00	142.00 *

The customer's purchase was $142.

Part 3: Complete Sales Tally

Enter/Press		Display	Print
145 [M±]	M	145.00	145.00 M+
47 [M±]	M	47.00	47.00 M+
[MT]		717.00	717.00 M*

The total sales completed by the salesperson was $717.00

Multiplication with Memory Keys

You need to purchase various quantities of several different items: 3 items at $10.50, 7 items at $7.25, and 5 items at $4.95.

You decide to use the memory for this calculation because you do not want to disturb a current calculation in the independent add register. Also, it will save some keystrokes to perform this calculation using the memory keys. In the independent add register, you would need to press [=] and then [+] or [−] to complete each part of the calculation. In memory, you only have to press [M±] or [M=] to complete each part.

POWER (PRT), ROUND (5/4), DECIMAL (2), TAX (CALC)

Enter/Press		Display	Print
[MT] †		0.00	0.00 M*
10.5 [×] 3 [M±]			10.5 x
			3. =
	M	31.50	31.50 M+
7.25 [×] 7 [M±]			7.25 x
			7. =
	M	50.75	50.75 M+
4.95 [×] 5 [M±]			4.95 x
			5. =
	M	24.75	24.75 M+
[MS] ††	M	107.00	107.00 M◊
4.95 [×] 5 [M=] †††			4.95 x
			5. =
	M	24.75	24.75 M-
[MT]		82.25	82.25 M*

† Pressing [MT] prints the current memory total (which may not be zero as shown) and clears the memory.

†† You calculate a memory subtotal to see the total amount of your order.

††† Due to a limited budget, you decide not to order the last item.

Tax Calculations

The TAX switch lets you store a tax rate. The [TAX+] key calculates the tax amount (using the stored tax rate) and adds it to the pre-tax sales amount. The [TAX-] key calculates the amount of tax to be deducted (using the stored tax rate) and subtracts it from the displayed value to find the pre-tax sales amount.

Storing a Tax Rate

To store a tax rate for use in tax calculations:

1. Set the **TAX** switch to **SET**. The currently stored tax rate is printed and displayed.
2. Key in the tax rate. For example, if the tax rate in your area is 7.5%, key in 7.5.
3. Set the **TAX** switch to **CALC.** The tax rate you entered is printed and stored for use in tax calculations.

Note: The tax rate you entered remains stored even when the calculator is turned off, but not if it is unplugged.

Calculating Sales Tax

You need to total a sales invoice for a customer who calls to order three items costing $189, $47, and $75. The sales tax is 6%. Calculate the customer's total.

First, store the tax rate.

1. Set the **TAX** switch to **SET**.
2. Key in 6.
3. Set the **TAX** switch to **CALC**. 6.% is printed.

POWER (PRT), ROUND (5/4), DECIMAL (2), TAX (CALC)

Enter/Press	Display	Print
[C]	0.	0. C
189 [+]	189.00	189.00 +
47 [+]	236.00	47.00 +
75 [+]	311.00	75.00 +
[*/T] †	311.00	311.00 *
[TAX+]		311.00 ◊
		18.66 Δ
	329.66	329.66 *

† Press [*/T] before calculating tax on a total.

$18.66 is the amount of tax on $311.00, and $329.66 is the total cost including tax.

Calculating a Total of Taxed and Untaxed Items

You purchase a $342 item that is taxed, and a $196 item that is not taxed. What is the total amount you will pay?

Use the stored tax rate from the previous calculation.

POWER (PRT), ROUND (5/4), DECIMAL (2), TAX (CALC)

Enter/Press	Display	Print
[C]	0.	0. C
342 [TAX+]		342.
		20.52 Δ
	362.52	362.52 *
[+] †	362.52	362.52 +
196 [+]	558.52	196.00 +
[*/T]	558.52	558.52 *

† Once you have calculated the taxed amount, press [+] to add the amount to the independent add register.

Subtracting Tax

On one Saturday, your business took in cash receipts of $1,069.51. You collected sales tax of 8.25%. What were your total sales for the day?

1. Set the **TAX** switch to **SET**.
2. Key in 8.25.
3. Set the **TAX** switch to **CALC**. 8.25% is printed.

POWER (PRT), ROUND (5/4), DECIMAL (2), TAX (CALC)

Enter/Press	Display	Print
[C]	0.	0. C
1069.51 [TAX-]		1,069.51
		-81.51 Δ
	988.00	988.00 *

$81.51 is the amount collected for tax on total sales of $988.00.

Grand Total Calculations

When the POWER switch is set to GT, a cumulative total is kept in the grand total register and the item counter is on. Pressing [GT] prints and displays the sum of all totals you have calculated. Any value in the grand total register is retained until you clear it even when the calculator is turned off, but not if it is unplugged.

Calculating a Grand Total

You operate a business. Calculate rent and material expenses for each of the first three months of the year and the total expenses for the first quarter of the year.

January		February		March	
Rent:	$500	Rent:	$500	Rent:	$500
Materials:	$535	Materials:	$614	Materials:	$587

Note: Before you begin, press [C], [GT], [GT] to clear the calculator and the grand total register.

POWER (GT), ROUND (5/4), DECIMAL (F), TAX (CALC)

Enter/Press	Display	Print
January:		
500 [+]	500.	500. +
535 [+]	1,035.	535. +
[*/T]		002.....
	1,035.	1,035. G+
February:		
500 [+]	500.	500. +
614 [+]	1,114.	614. +
[*/T]	1,114.	002..... G+
		1,114
March:		
500 [+]	500.	500. +
587 [+]	1,087.	587. +
[*/T]		002..... G+
	1,087.	1,087.
First Quarter:		
[GT]	3,236.	3,236. GØ
[GT]	3,236.	3,236. G*

Pressing [GT] once prints the grand total but does not clear the register. Pressing [GT] a second time prints the grand total (indicated by G*) and then clears the register.

Gross Profit Margin Calculations

The gross profit margin key [GPM] lets you calculate the selling price of an item and the profit or loss amount. You must first know the cost of the item and the profit or loss margin based on the selling price.

Procedure for Performing a GPM Calculation

To calculate gross profit margin:

1. Enter the cost of the item.
2. Press [GPM].
3. Enter the profit or loss margin. **Note:** Be sure to enter a loss margin as a negative value.
4. Press [=].

Calculating a Profit Amount

An item cost you $65.00. You would like to earn a 40% profit when selling the item. Calculate the selling price.

POWER (PRT), ROUND (5/4), DECIMAL (2), TAX (CALC)

Enter/Press	Display	Print
[C]	0.	0. C
65 [GPM]	65.	65. GM
40 [=]		40. %
		43.333333333 Δ*
	108.33	108.33 *

When rounded, $43.33 is the amount of profit, and $108.33 is the selling price.

Calculating a Loss Amount

An item cost you $35,000. You must sell it, but can only afford to lose 33.3%. Calculate the selling price.

POWER (PRT), ROUND (5/4), DECIMAL (2), TAX (CALC)

Enter/Press	Display	Print
[C]	0.	0. C
35000 [GPM]	35,000.	35,000. GM
33.3 [−] [=]		33.30 −
		−33.30 %
		−8,743.435859 Δ*
	26,256.56	26,256.56 *
[C]	0.	0. C

When rounded, $8,743.44 is the amount you lose, and $26,256.56 is the selling price.

Note: After calculating a loss amount, press [C] to clear the independent add register.

Percent and Constant Calculations

The percent key [%] lets you calculate percentages. If you follow a percent calculation with the [+] or [−] key, you can calculate an add-on or discount. The automatic constant feature lets you multiply or divide by a constant value.

Example	Switches		Enter/Press	Display	Print	
Percent	POWER	(PRT)	[C]	0.	0.	C
$49 x 15%	ROUND	(5/4)	49 [×]	49.	49.	x
	DECIMAL	(2)	15 [%]		15.	%
	TAX	(CALC)		7.35	7.35	*
Add-On	POWER	(PRT)	[C]	0.	0.	C
$1,450 +	ROUND	(5/4)	1450 [×]	1,450.	1,450.	x
15%	DECIMAL	(F)	15 [%]		15.	%
	TAX	(CALC)		217.5	217.5	*
			[+]	1,667.5	1,667.5	+%
Discount	POWER	(PRT)	[C]	0.	0.	C
$69.95 −	ROUND	(5/4)	69.95 [×]	69.95	69.95	x
10%	DECIMAL	(F)	10 [%]		10.	%
	TAX	(CALC)		6.995	6.995	*
			[−]	62.955	62.955	-%
Multiplying	POWER	(PRT)	[C]	0.	0.	C
by a	ROUND	(5/4)	5 [×]	5.	5.	x
Constant†	DECIMAL	(F)	3 [=]		3.	=
	TAX	(CALC)		15.	15.	*
			4 [=]		4.	=
				20.	20.	*
Dividing	POWER	(PRT)	[C]	0.	0.	C
by a	ROUND	(5/4)	66 [÷]	66.	66.	÷
Constant††	ROUND	(F)	3 [=]		3.	=
	TAX	(CALC)		22.	22.	*
			90 [=]		90.	=
				30.	30.	*

† The first number in a multiplication problem is the constant multiplier.

†† The second number in a division problem is the constant divisor.

Error and Overflow Conditions

When an error or overflow condition occurs, the calculator displays and prints indicators to let you know what the problem is. This page describes how these conditions occur, how the calculator reacts when they occur, and how to recover from an error or overflow condition.

Error Conditions and Indicators

An error condition occurs if you attempt to divide by zero or calculate a selling price using a margin of 100%. When this happens, the calculator:

- Prints a row of dots and 0.*
- Displays the **E** indicator and 0.

Overflow Conditions and Indicators

An overflow condition occurs if you calculate a result with more than 12 digits to the left of the decimal; that is, a result with too many digits for the calculator to display or print. When this happens, the calculator:

- Prints a row of dots and the first 12 digits of the result with a decimal point 12 places to the left of its correct position.
- Displays **E** and the first 12 digits of the result with a decimal point 12 places to the left of its correct position.

Clearing an Error or Overflow Condition

Press:	To clear:
[C]	Any error or overflow condition, the **E** indicator from the display, any displayed value, the independent add register, and any pending calculation. Does not clear the memory or the grand total register.
[CE]	Only an overflow condition, the **E** indicator from the display, and the entry that caused the overflow. Does not clear the independent add register, any pending calculation, the memory, or the grand total register.

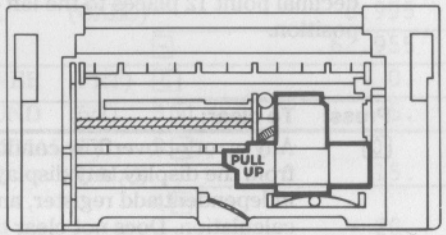
Replacing the Ink Roller

You can usually obtain IR-40T ink rollers and 2¼-inch rolls of quality bond paper at the store where you purchased your calculator. You can order ink rollers directly from TI using the order form on the back cover of this guidebook. Instructions for replacing the ink roller are given below. Refer to page 4 for installing the paper.

Replacing the Ink Roller

If the printing becomes faint, the ink roller may need to be replaced. To install a new ink roller:

1. Tear the paper off between the paper roll and where the paper enters the printer compartment.
2. Press the paper advance key [▲] to run out the remaining piece of paper.
3. Set the **POWER** switch to **OFF**.
4. Remove the clear plastic printer-compartment cover by placing a thumb on each of the raised group of dots. Then press down and push back to slide the cover off.
5. Remove the old ink roller by lifting the tab on the left side of the roller where it is labeled **PULL UP**.



6. Position the new ink roller in the compartment and gently press it down until it snaps into place on both sides.
7. Replace the printer-compartment cover and set the **POWER** switch to **ON**, **PRT**, **IC**, or **GT**.

Warning: Never attempt to refill or moisten the old ink roller. This may damage the printing mechanism and void the warranty.

In Case of Difficulty

The following procedures can help resolve difficulties you may experience while operating the calculator.

Procedures

1. Be sure that the power cord is properly connected, and that the **POWER** switch is set to **ON**, **PRT**, **IC**, or **GT**. An inoperative outlet is sometimes the reason the calculator does not work.
2. If the difficulty involves calculation errors or the calculator does not respond to keyboard entries:
   - Press [C] to clear the calculator. The calculator should display 0. and print 0. C. Check the switch settings and repeat your calculation.
   - Turn the power off for ten seconds and then back on again. Repeat the calculations.
   - Review the instructions in this guidebook to be certain that you have performed the calculations as described. Improper key sequences or improper switch positioning may cause incorrect results.
3. If no printing appears on the tape:
   - Make sure the **POWER** switch is set to **PRT**, **IC**, or **GT**.
   - Make sure the ink roller is snapped firmly in place and that it has not run out of ink.
4. If the paper jams:
   - The paper may be curling too much if it is close to the end of the roll. Install a new roll of paper.
   - Make sure you are using quality bond paper.

If these procedures do not correct the difficulty, refer to Service Information.

Service Information

For Service and General Information

If the solutions suggested by In Case of Difficulty do not correct a problem, or if you have questions about service or product use, please call Consumer Relations at:

1-800-TI-CARES (1-800-842-2737).

You may also write to:

Texas Instruments Incorporated
Consumer Relations
P.O. Box 53
Lubbock, Texas 79408-0053

Please contact Consumer Relations:

- Before returning the product for service.
- For general information about using the product.
- For information about accessories not available from your local dealer.
- For information on our express service option for fast return delivery.

Returning Your Product for Service

Texas Instruments cannot assume responsibility for loss or damage during incoming shipment. For your protection, carefully package the product for shipment and insure it with the carrier. Be sure to enclose the following items with the product:

- Your full return address and daytime phone number.
- Any accessories related to the problem.
- A note describing the problem you experienced.
- A copy of your sales receipt or other proof of purchase to determine warranty status.

C.O.D. shipments cannot be accepted.

In-Warranty Repair

For a product covered under the warranty period, no charge is made for service.

Out-of-Warranty Repair

A flat-rate charge by model is made for out-of-warranty service. To obtain the service charge for a particular model, call Consumer Relations **before** returning the product for service. (We cannot hold products in the Service Facility while providing charge information.)

One-Year Limited Warranty

Warranty Duration and Coverage

This Texas Instruments product is warranted to the original consumer purchaser against defective materials or workmanship for a period of one (1) year from the original purchase date. **This warranty is void if the product has been damaged by accident, unreasonable use, neglect, improper service, or other causes not arising out of defects in material or workmanship.**

Warranty Disclaimers

Any implied warranties arising out of this sale, including but not limited to the implied warranties of merchantability and fitness for a particular purpose, are limited in duration to the above one-year period. Texas Instruments shall not be liable for loss of use of the product or other incidental or consequential costs, expenses, or damages incurred by the consumer or any other user.

Some states do not allow the exclusion or limitations of implied warranties or consequential damages, so the above limitations or exclusions may not apply to you.

Legal Remedies

This warranty gives you specific legal rights, and you may have other rights that vary from state to state.

Warranty Performance

During the above one-year warranty period, a defective TI product will either be repaired or replaced with the same or comparable reconditioned model (at TI's option) when the product is returned, **postage prepaid,** to a Texas Instruments Service Facility. The repaired or replacement product will be in warranty for the remainder of the original warranty period or for six months, whichever is longer.

Texas Instruments Service Facilities

Texas Instruments strongly recommends that you insure the product for value prior to mailing.

U.S. Residents (U.S. Postal Service)
Texas Instruments
P.O. Box 2500
Lubbock, Texas 79408-2500

U.S. Residents (other carriers)
Texas Instruments
2305 N. University
Lubbock, Texas 79408-3508

Canadian Residents Only
Texas Instruments
41 Shelley Road
Richmond Hill, Ontario, Canada L4C 5G4

FCC Information Concerning Radio Frequency Interference

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference with radio communications. However, there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, you can try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/television technician for help.

Caution: Any changes or modifications to this equipment not expressly approved by Texas Instruments may void your authority to operate the equipment.

This digital apparatus does not exceed the Class B limits for radio noise emissions from digital apparatus set out in the Radio Interference Regulations of the Canadian Departm of Communications.

Note: Please make a copy of this page for use as an order form. To avoid the los warranty information, do not cut or tear.

TI-5045 SV Accessory Order Form

Please send me: _____ IR-40T ink roller (call for price)

Quantity (Each package contains one ink roller.)

State and local taxes (all states except Alaska Delaware, Montana, New Hampshire, and Ore

Handling charge _____

TOTAL (U.S. dollars only) _____

☐ I am enclosing a check or money order. (Please do not send cash.)

☐ Bill to my: ☐ MasterCard ☐ Visa

_____ _____

Number Expiration date

_____

Signature

☐ Please ship C.O.D. (C.O.D. charges will be added.)

_____ _____

Name Address

_____ _____

City State Zip

Printed in Hong Kong

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